Technical Data Sheet

Purified Mouse Anti-PDI

Product Information

Material Number: 610946
Size: 50 µg
Concentration: 250 µg/ml
Clone: 34/PDI
Immunogen: Bovine PDI aa. 109-214
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
Tested in Development: Dog, Rat, Mouse,
Target MW: 55 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The ER is the site of translation of membrane and secretory proteins. Following synthesis, it shuttles these proteins through a contiguous membrane system to their appropriate destinations. Protein disulfide isomerase (PDI) is an abundant, multifunctional, eukaryotic protein. Although it exhibits ubiquitous expression, it is primarily located in the ER lumen. Here, it functions to catalyze the isomerization of intramolecular disulfide bridges, thereby allowing them to generate their most thermodynamically stable configurations. This role in rearrangement has led to the classification of PDI as a chaperone. Although protein folding occurs in its absence, PDI may be essential for it to proceed at a physiological relevant rate. In addition, PDI is the β-subunit of prolyl 4- hydroxylase and is a component of the triglyceride transfer complex. PDI is retained in the ER lumen via its C-terminal -KDEL sequence. Via this sequence, it is continuously recycled back to the ER from other membranous compartments. Thus, PDI is a diverse protein whose primary function may be to correct disulfide bonding and, thus, ensure the most stable conformation of newly synthesized proteins.


Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

Application
Western blot Routinely Tested
Immunofluorescence Tested During Development

Recommended Assay Procedure:
Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

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Suggested Companion Products

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<td>HCT-8 Cell Lysate</td>
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<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References


Schlegel A, Arvan P, Lisanli MP. Caveolin-1 binding to endoplasmic reticulum membranes and entry into the regulated secretory pathway are regulated by serine phosphorylation. Protein sorting at the level of the endoplasmic reticulum. J Biol Chem. 2001; 276(6):4398-4408. (Clone-specific: Western blot)


Wetterau JR, Combs KA, Spinner SN, Joiner BJ. Protein disulfide isomerase is a component of the microsomal triglyceride transfer protein complex. J Biol Chem. 1990; 265(17):9800-9807. (Biology)